

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A viewing system, comprising acquisition means for acquiring a sequence of images, detection means for detecting an object of interest in said sequence of images,
said detection means comprising:
 - localizer detection sub-means for detecting a location of localizers related to said object of interest, wherein the localizers comprise simply shaped objects of radio-opaque material,
 - border detection sub-means for indirectly detecting a location of borders related to said object of interest, using said location of the localizers, and viewing means for displaying said sequence of images.
2. (currently amended) A viewing system as claimed in claim 1, wherein said border detection sub-means comprise:
 - initialization sub-means for building an initial contour of said borders, containing said localizers, from a priori knowledge about said object of interest, and
 - active contour sub-means for moving said initial contour under the effect of forces related to said object of interest within said sequence of images.
3. (previously presented) A viewing system as claimed in claim 1, comprising enhancement means for enhancing said borders using said location of borders and delivering a sequence of enhanced images.

4. (previously presented) A viewing system as claimed in claim 1, comprising measurement means for measuring characteristics of said object of interest using said location of borders.
5. (previously presented) A viewing system as claimed in claim 4, wherein said characteristics are widths of said object of interest along a length of said object of interest.
6. (previously presented) A viewing system as claimed in claim 1, wherein said acquisition means are able to acquire at least two views of said object of interest, said viewing system also comprising 3D representation means for delivering a 3D representation of said object of interest from said views and said location of borders.
7. (previously presented) A viewing system as claimed in claim 6, wherein a cylindrical model is used by said 3D representation means when said object of interest has a tubular shape.
8. (currently amended) A viewing system as claimed in claim 1, wherein said object of interest is a stenosis or a stent and said localizers are a tip (9) or balloon markers.
9. (currently amended) A viewing system ~~as claimed in claim 3, comprising acquisition~~ means for acquiring a sequence of images, detection means for detecting an object of interest in said sequence of images
said detection means comprising:
 - localizer detection sub-means for detecting a location of localizers related to said object of interest,

- border detection sub-means for detecting a location of borders related to said object of interest, using said location of localizers.
enhancement means for enhancing said borders using said location of borders and delivering a sequence of enhanced images, and
viewing means for displaying said sequence of images, wherein said viewing means also comprise local registering means for registering a sequence of reference images with respect to said sequence of enhanced images so as to form a new sequence of enhanced images, in which said sequence of enhanced images and said sequence of reference images are combined.

10. (currently amended) A viewing system ~~as claimed in claim 3,~~ comprising acquisition means for acquiring a sequence of images, detection means for detecting an object of interest in said sequence of images
said detection means comprising:
- localizer detection sub-means for detecting a location of localizers related to said object of interest,
- border detection sub-means for detecting a location of borders related to said object of interest, using said location of localizers.
enhancement means for enhancing said borders using said location of borders and delivering a sequence of enhanced images, and
viewing means for displaying said sequence of images, wherein said viewing means also comprise local registering means for registering said sequence of enhanced images with respect to a sequence of reference images so as to form a new sequence of reference images, in which said sequence of enhanced images and said sequence of reference images are combined.

11. (currently amended) A method, comprising a detection step for detecting an object of interest in a sequence of images, said detection step comprising sub-steps of:

- localizer detection for detecting a location of localizers related to said object of interest, wherein the localizers comprise simply shaped objects of radio-opaque material, and
 - border detection for indirectly detecting a location of borders related to said object of interest, using said location of the localizers.
12. (currently amended) A device comprising detection means for detecting an object of interest in a sequence of images, said detection means comprising:
- localizer detection sub-means for detecting a location of localizers related to said object of interest, wherein the localizers comprise simply shaped objects of radio-opaque material, and
 - border detection sub-means for indirectly detecting a location of borders related to said object of interest, using said location of the localizers.
13. (currently amended) A computer program comprising a set of instructions embodied or encoded on a computer-readable medium for implementing a method as claimed in claim 11 when said program is executed by a processor.
14. (previously presented) A medical examination imaging apparatus comprising a viewing system as claimed in claim 1.
15. (new) A viewing system as claimed in claim 9, wherein said border detection sub-means comprise:
- initialization sub-means for building an initial contour of said borders, containing said localizers, from a priori knowledge about said object of interest,
 - active contour sub-means for moving said initial contour under the effect of forces related to said object of interest within said sequence of images.

16. (new) A viewing system as claimed in claim 9, comprising measurement means for measuring characteristics of said object of interest using said location of borders.
17. (new) A viewing system as claimed in claim 16, wherein said characteristics are widths of said object of interest along a length of said object of interest.
18. (new) A viewing system as claimed in claim 9, wherein said acquisition means are able to acquire at least two views of said object of interest, said viewing system also comprising 3D representation means for delivering a 3D representation of said object of interest from said views and said location of borders.
19. (new) A viewing system as claimed in claim 9, wherein a cylindrical model is used by said 3D representation means when said object of interest has a tubular shape.
20. (new) A viewing system as claimed in claim 9, wherein said object of interest is a stenosis or a stent and said localizers are a tip or balloon markers.